

IN THE ABSTRACT

A display or image capture apparatus includes a scanning assembly that scans about two or more axes, typically in a raster pattern. A plurality of light sources emit light from spaced apart locations toward the scanning assembly ~~such that~~ and the scanning assembly simultaneously scans more than one of the beams. The light sources are positioned ~~such that their beams each illuminate~~ so each beam illuminates a discrete region of the image field that is substantially non-overlapping with respect to the other discrete regions. Each line of the image is formed from a set of segments where two or more of the segments define a line of an image. Because the lines are made from discrete segments, the problem of raster pinch is ~~reduces~~ reduced. ~~Where a single sweep of the scanning assembly scans a plurality of segments simultaneously, t~~ The achievable resolution of the display for a given scan angle and mirror size is increased relative to a mirror sweeping a single beam. ~~In alternative embodiments, the scanning approach is used for imaging. Also, s~~ Segments of different wavelengths can be overlapped to produce a color display.